

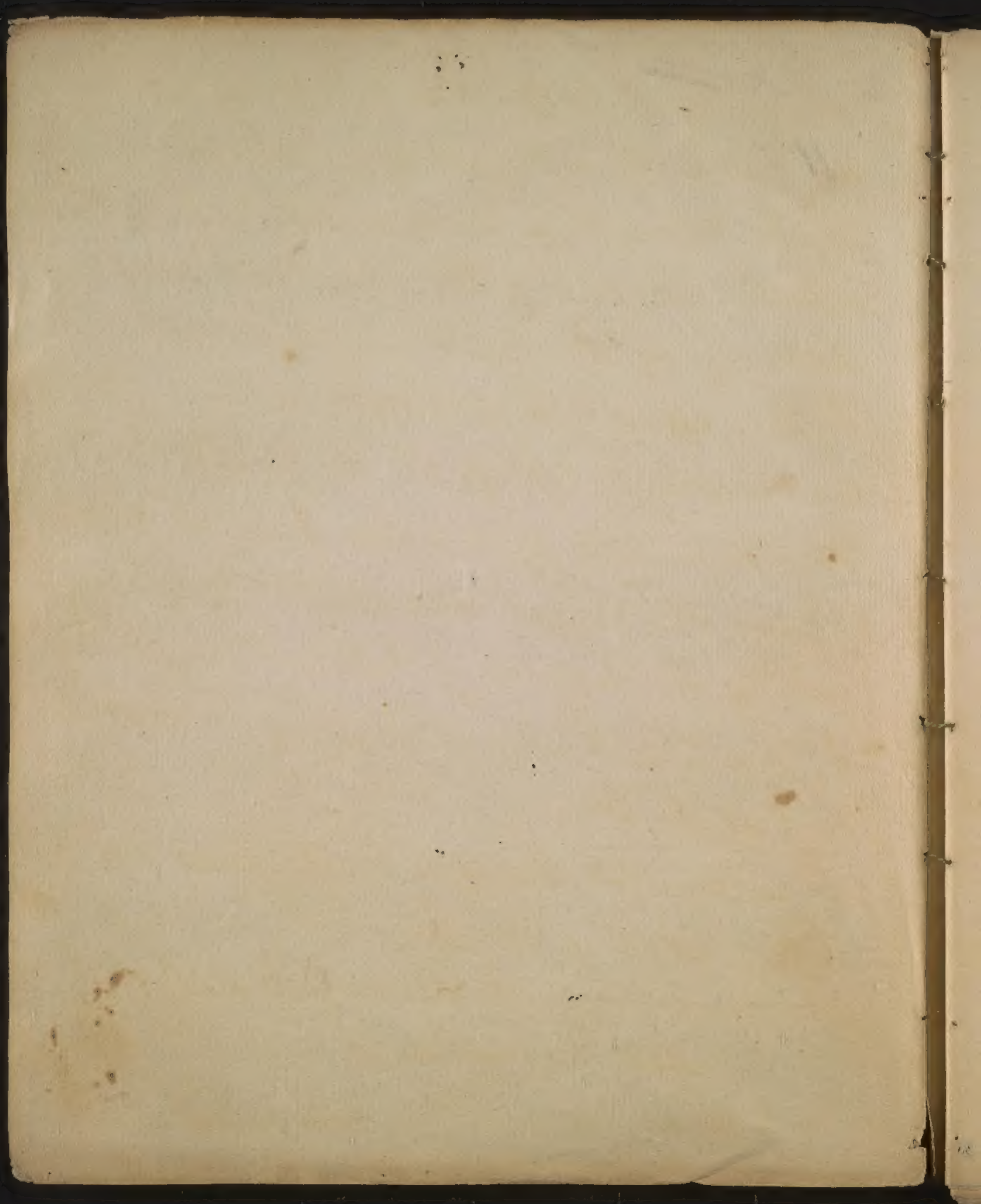
~~30~~

88

11

Y. 2
7396
F 8

On the sensible qualities
of the Air. of Cold - cont?



39

given of this fact is correct. I infer from
the parts thus tinged of a red color, being
pale before they become red, and after a
while becoming blue or livid from a
tendency of the parts in which the red
blood is effused to a mortification. We
see the same effects in the face of hard-
= drinkers, and of persons subject to Anger,
& from the same relaxation & previous
state of the capillary vessels induced by
the frequent determination of blood to that
part of the body. —

4 we are told the Cold Bath ~~works~~ acts by
a stimulating power, and hence its great
usefulness in a debilitated state of the body.

- The first ~~impression~~ of Cold Water ⁱⁿ ~~upon~~
two ways. For
this body ~~is~~ ^{can} act in ~~one of two or both~~

[Faint, illegible handwritten text, likely bleed-through from the reverse side of the page.]

~~It~~ It stimulates ^{to} mechanically by the
force with which it is impelled against
the body. This is evidently the case with
the Shower bath, and 2^{ly} it abstracts heat
and ~~excites~~ reduces excitement, and thus
accumulates excitability upon which
the common Stimuli of life - the exertions
in the bath, & in coming out of it, and
the external Air (now much warmer
than the body) all act in such a Man-
-ner as to produce elevated excitement
and in some cases the morbid excite-
-ment of fever. The primary effects of
the Cold Bath are ~~indirectly~~ relative. Its
Stimulus is wholly of an indirect ^{nature.}
5 It is ~~not~~ we sometimes see a ^{draught} ~~quantity~~
of Cold Water suddenly induce partial or

48

general sweats. Are not these sweats the
effects of a stimulating power of in cold?
- I answer - no - the cold water in this
case acts ^{only} by reducing the system to the
sweating point. we see the same thing
occur from bleeding, and from other
depleting medicines. we see it likewise
from the external Application ^{of} cold
water to the body in a fever. I have
^{seen} once this sweat in a fever ~~to be~~ com-
-pined exclusively to the part of the body
to which the ^{cold} water was applied. It was
^{a patient in} in the Pennsylvania hospital. -

6th The Cutis Anserina which is induced
by Cold, ~~has~~ has been ascribed to ^{its} supposed
stimulating power. ~~This appearance~~
^{upon} ~~the~~ ^{of the} skin ~~is~~ is proba-
-bly

✓ or if be not its natural state, it may
be induced by ^{such} a partial contraction of
the skin from the Absorption of the
Stimulus of heat - as to leave a part
of the extremities of the nerves or blood =
= vessels in their natural state.

its natural state, and ^{it} would exist constantly
were it not prevented by the action of
heat upon it which gives it ^a smooth
and uniform surface. — I have seen it
after death, and in very warm weather.
The stimulating effects of Cold have
been inferred from the Discharges which
take place from the eyes & nose in cold
weather. They arise from a defect of
absorption in consequence of the torpor
induced upon the Lymphatics by Cold.
— The same torpor induced by other causes
produces the same ^{Discharges from} ~~effects upon~~ the eyes
and nose of old people.

& Fainting is often cured by throwing
a little cold water upon the face. This
fact is urged in favor of the stimulating
effects of Cold. The Stimulus here is the

[Faint, illegible handwritten text, likely bleed-through from the reverse side of the page. The text is written in cursive and spans most of the page.]

weight and force of the ⁴³ water acting upon a sensible part of the body in a state of excitability suddenly accumulated, and that in the highest degree. —

9 The pulse ^{it is urged,} is diminished by the action of ^{water} cold upon ~~the~~ the whole, or part of the body. The first action of cold ~~water~~ water when thus applied, is to reduce the force & frequency of the pulse. It does ~~so~~ so, only by its sedative power. ~~The~~ ^{The} subsequent frequency of the pulse is the effect of the debility induced upon the Arterial System by the cold, ~~and~~ accompanied with a degree of morbid ~~action.~~ Hence ~~the heart contracts before it is~~ ^{of blood} we see the same thing in low fever, and after the operation of fear which is universally admitted to be of a sedative nature.

10 We are told that the cool or cold air is often an exciting Cause of fever — and that

V Not only fevers, but even convulsions
in the ~~nervous~~ muscular system, are
sometimes brought on by the same
sedative causes.

it must act in this case by a stimulating
 power. ^{To this I answer,} ~~The cold is not~~ - that the
 cold, or Cool air may act in two ways
 1 by checking perspiration which by
 stimulating the Capillaries directly, or by
 being absorbed, and thrown upon insupportable
 parts, may induce fever, or 2^d it may
 act ^{as I formerly said} by suddenly destroying the equilibrium
 of the system by its sedative power. In
 this way a temporary fever is sometimes
 induced by fear and grief both of which
 we know to be sedative passions. A fever
 is even induced by bleeding when ^{advised} ~~directed~~ to
 remove ~~local~~ congestions in the brain, &
 this remedy ~~we~~ ^{we know to be of sedative nature.}
~~and from the same~~ ^{or same operation.} I
 know the followers of Dr Brown ascribe the
 production of fever to the heat which succeeds
 the Application of Cold to the body, and

11^{ly} and lastly. I infer Cold to be a sedative
from its always ~~increasing~~ ^{accumulating} ~~from~~ ⁱⁿ ~~the~~ ^{the} body
excitability in the parts ~~to~~ ^{of} the body
to which it is applied - ~~provided~~ ⁱⁿ ~~now~~ ^{now} ~~known~~ ^{known}
- limits of all kinds expend excitability, or con-
-vert it into excitement. This single fact is
sufficient to establish the principle I am
defending. In speaking of the accumulation of
excitability by cold, take notice I mean only when
it is suddenly applied, and continued for a short
time. When applied a great while, it is expended as
in the cold climates of Sweden & Russia.

V The Abstraction of light, as fever is the
abstraction of courage, ^{as debility and disease are the effects} so Cold is the
of the abstraction of strength,
effect only of the abstraction of heat.†

I shall resume ~~this~~ and apply this doctrine

When I come to treat of the Cure of

fevers.

+ So forcibly did the truth of the Opinion
I have defended strike the late Dr. Beddoes
that he has left it upon record, that if he
were to fix upon a criterion to establish
the greatest possible prejudice or Obliquity
of the human Understanding, it should be

hence they have changed the common
phrase of taking a cold to "taking a heat".

That fives are sometimes taken in this way there can be no doubt, but it is

~~only where the heat radiates the long and~~

~~feeble degree~~ but I believe they are
the ways I have mentioned viz stoppage of progress
of sedative action

~~feels degenerate~~ but I believe they are
in the ways I have mentioned viz stoppage of perspi-
ration or ^{the} much often induced by the sedative action
destroying the equilibrium.

much opened and
of the cold suddenly destroying the equilibrium

unit of the System. The Antimonial fuses

appear to be brought on in this way

when they make their first attack After

wearing ^{too} their Clothing, or sleeping un-
der ^{the} bed &c. &c. of the

too light in covering. — The action of the
-den_p light in covering. — the body being

Cold is much favoured by the body being
filled with *inflammata* from vegetable

impregnated with mica much of which
is in the fall of
it is indeed broken

I received your favour of the 10th inst. & shall receive this subject before
of the year of peace. ~~with the thought~~ therefore that

no moral evil is the effect of the abstraction of

Moral Good, as Dashiell is the effect of V

a belief in the ~~for~~ stimulating effects of Cold,
& the sedative effects of Opium. I ^{conclude in} subscribe to
the truth of the remark.

follows the
V In this ~~off~~ respect it an analogy of
the negative will to which I have just
now compared it - for moral will, -
Dartness, ^{and Debility} and fear all produce the most
serious positive ~~and so~~ effects.

~~Weight and force of the water acting upon
a sensible part of the body in a state of
the highest degree of accumulation &
excitability and only accumulated, &
that too in the highest degree.~~

While I thus ~~deny that the~~ ascribe a
negative quality, or a sedative operation
to colds, I admit that it produces many
positive effects upon the system. I shall
now proceed to enumerate ^{the morbid effects of cold.} ~~the morbid effects of cold.~~ They
will furnish many further proofs
that cold does not possess stimulating
powers.

1 ~~Cold~~ Cold induces debility and excitability
upon the Arterial System, and thus disposes
to all the different forms of fever. When
very intense, it creates pain in the
breast. This was sensibly felt by the

...
likewise

✓ It weakens and sometimes destroys
sensitivity, and that to such a degree that
Mr. Meade tells us the natives of the
northern extremity of our country feel
no pain from wounds made with
glaz in the soles of their feet.

French Academicians who went to measure
a degree near the North pole. ^{It sometimes}
bring on Hemoptysis. ^{It also disposes of} ^{forces to bleed.}
2 It affects the nerves with ^{pain} torpor, ^{and}
thus disposes to the hypochondriac Disease.

3 It produces languor in the muscles & an
indisposition to voluntary motion. hence
it has been said the inhabitants of cold
Countries were made to be slaves - the
will being too weak in them to overcome
the languor in their muscles, it should be
stimulated into action by the will of a
master. This argument to be true should
be reciprocal ~~of~~ between master & ^{upon}
Slave, for the effects of cold are the same ~~in~~
each of them.

4 Cold when intense, ~~induces first~~ ~~head~~ ~~ache~~
~~then~~ ~~stupor~~ ~~and~~ ~~afterwards~~ acts. Upon
the brain, and induces pain - stupor

By lessening perspiration, and thus removing the natural moisture and softness of the skin it dulls the sensation of touch.

It says that animals that perish with cold retain their Appetites to the last of their lives.

~~When cold when applied permanently, changes even the figure of the face. It contracts the eye lids - and raises the ^{eye} brows - By the pressure of the lower jaw against the upper, to open the pain of ^{cold} it elevates the cheeks - bones and lengthens the length of the face, and thus produces the adumbration of generations the contracted & broad face of W. is observed in the inhabitants of cold northern countries; Pitme~~

and death. 5 ⁴⁸

It debilitates the faculties of the mind.

6 It affects several of the senses. I have already mentioned its effects upon the sense of touch, ^{in inducing pain} & It lessens the acuteness of ^{taste} ~~touch~~ and dulls the sense of vision, ^{in part} probably by its being generally accompanied with the reflection of the rays of light from the snow.

7 Cold invigorates the appetite, especially for animal food. Horses eat more in cold stables than in close and warm ones. The stimulus of Abiment serves to counteract the debility induced by the cold. It even awakens appetite in ~~hot climates~~ when it succeeds a hot day in the middle of the night in warm climates. Dr Arbuthnot

8 The effects of cold upon the skin are as various as the effects of heat. ^{By} ~~By~~

✓ Got when applied for a long time
produces fous and Ulcers on the Skin.
This was remarkably ^{in the sailors} the case on
board the American Sloop of War the
Huntress in the winter of 1811.12.

Obstructing perspiration it disposes to cuta-
 neous eruptions. ~~or~~ When it has not this
 effect, it increases the secretion & discharge of
 Urine. This is so frequently the case that
 Dr Sydenham recommends the application
 of it to the Skin to remove the Suppression of
 Urine which sometimes takes place in
 the malignant fever. - It renders sweating
~~more~~ difficult, and hence the propriety of
 resorting to other modes of depletion in the
 fevers of Cold climates. When applied for
 a long time it ^{produces a dark} ~~discharges the~~ white color
 upon the Skin resembling that which is
 produced by the long Application of heat.
 It ~~also~~ weakens the Venereal Appetite. Perhaps
 it may have this effect by the ~~reflections~~ ^{reflections} which
 attend it in view of the difficulties of suppres-
 sing a numerous family of children

V It appears not only in the reduced fire of the body, but of the shorter length of the face. They are ~~both induced by~~ ^{the} natural operation of the cold is aided by prudence to obviate cold in the limbs & body, and by the #

~~VI I shall conclude this Account of the positive effects of cold by taking notice of a fact lately established by a number of experiments made by Dr DeLaRoche of Geneva, and that is - animals live longer in a temperature of air lower by a greater number of degrees than 96° or animal heat, than above them.~~

VI effects of heat.

the prudence of the lower upon the upper jaw. The heat shortens the face.

where ~~for~~ the means of Subsistence are
less abundant than in warm countries.

10. Cold contracts the Solids of the human body
in such a manner as to diminish this
a lapse of generations the fire of animals.
The human body is lessened by it. This is
observable in the inhabitants of the extremity
of the north of Europe. It is by its contin-
-ting ~~the~~ the fibres of ~~the body~~ that a few
degrees of Cold Water increases the pain of
the rack when thrown upon the body.
It acts by increasing their ~~tendency to~~
a solution of Continuity. ~~Less~~ the pain of
contraction is added to that of distension.

Let us next inquire into the relative
effects of Cold in producing Disease, and here I
shall follow the same order as in speaking of the relative
1 Its morbid effects are lessened by its
Uniformity. The most healthy winters I
have known in Philad^a have been those
in which a dry - uniform Cold prevailed.

V This is obvious every day from the ^{not only to} insensibility of the face and hands to the coldness of the air, but to the coldness of the water with which we wash ~~our hands & face~~ them every morning. The apportionment of the hands and face with the whole body is destroyed by habit. The same thing does not take place when the feet are immersed in cold water. The whole body sympathizes in the cold induced in them.

I observed ~~the~~ it the first time in the
 year 1764 when a ~~sort~~ sort of medicine.
 Diseases are locked up in Canada ~~and~~ ^{Germany}
 & in Russia During the winter. [Even the
~~Catastrophe~~ the usual disease of variable
~~the winter~~ is unknown ~~in that~~ Dr
 Guthrie tells us in the ~~latter~~ ^{Russians and the} ~~latter~~ ^{country}
~~the latter country~~]. The
 same account is given by Pontoppidan
 of the healthiness of the winters in Norway.
 They are so in all those countries, only
 because they are uniformly cold & dry.
 2 The morbid effects of cold are ~~increased~~ ^{lessened}
 time and habit! cold after a while produces
 insensibility, not only to itself, but to heat.
 This has often been observed in the West-
 -Indies, where the Europeans bear the intense

V It is felt every day from the insensibility
of the face and hands to the coldness of the
water with which we wash them every
morning.

heat of the sun better than the natives of
 the Islands. ~~This~~ insensibility to heat is
 to be acquired only by ~~living in a climate~~ ^{the long action}
~~that is~~ of cold ^{upon the body}, alternated with little
 heat. In a climate like ours we lose
 the insensibility of to cold contracted ⁱⁿ by
 a single winter by the succeeding heat of the
 summer. The man therefore who attempts
 to fortify himself against the cold in
 Pennsylvania by light clothing will
 have his work to begin and do over
 again every winter. [If he should acquire
 his long sought for insensibility to cold
 it will be in the same way in which a
 farmer taught his horse to live without
 eating. ^{As soon as} ~~His experiment succeeded, but~~
 the poor animal ~~did immediately~~

✓ the feet and trunk of the body from
an insensibility to cold contracted from
~~washing them even morning and~~ by
their being ^{early &} more constantly exposed to
the cold.

was perfectly taught his new lesson,
he died.]—

3 They are affected by the natural in-
-sensitivity of some parts of the body
to this operation. The lungs feel the
cold, much less than any other part
of the body. The head is insensible to
it in the next degree. ^{It is} from this ^{power} activity
of resisting cold in the head
of the ~~brain~~ that it is seldom, perhaps,
ever cold in the cold fit of an inter-
-mittent. The hands are ^{suffering} less than
in all those persons

4. They are ~~opened by~~ ⁱⁿ all those persons who are affected with the ^{nervous} ~~system~~ of Hemison - that is who possess a predisposition to nervous Diseases. Hence hysterical patients ~~have~~ suffer most in cold weather.

5 They ~~are~~ are less harmful to children than to grown people. Thompson relates an instance of a child being found alive upon ~~its mother's~~ the back of its mother who was frozen to death.

✓ provided they do not exceed ~~the~~ 98°
or the natural temperature of the hu-
= man body. Beyond this grade, no
sensation of cold is felt from the de-
= scent of the mercury in the thermometer.

The morbid effects of Cold are increased,

The Cold

! by previous heat. ~~This~~ ^{is} ~~also~~ ^{also} ~~diffinently~~ ^{diffinently} according to the following circumstances.

1 ~~the~~ degrees of previous heat. the higher the grade of heat the more sensibly ~~the~~ small

deviations from ~~it~~ ^{the} act upon the body, ^{the mercury} but Mr. Bydane says the Air when ~~it~~ ^{the} fell from

112: to 80: ~~at Naples~~ After a tyrocco Wind

had passed over the City of Naples, was attended with a painful sensation of Cold.

Baron Humbolt informed me that a sudden fall of the $\bar{\gamma}$ from 90: to 80: gave him

the a similar sensation in South America.

The sensation of Cold was ~~exactly~~ still

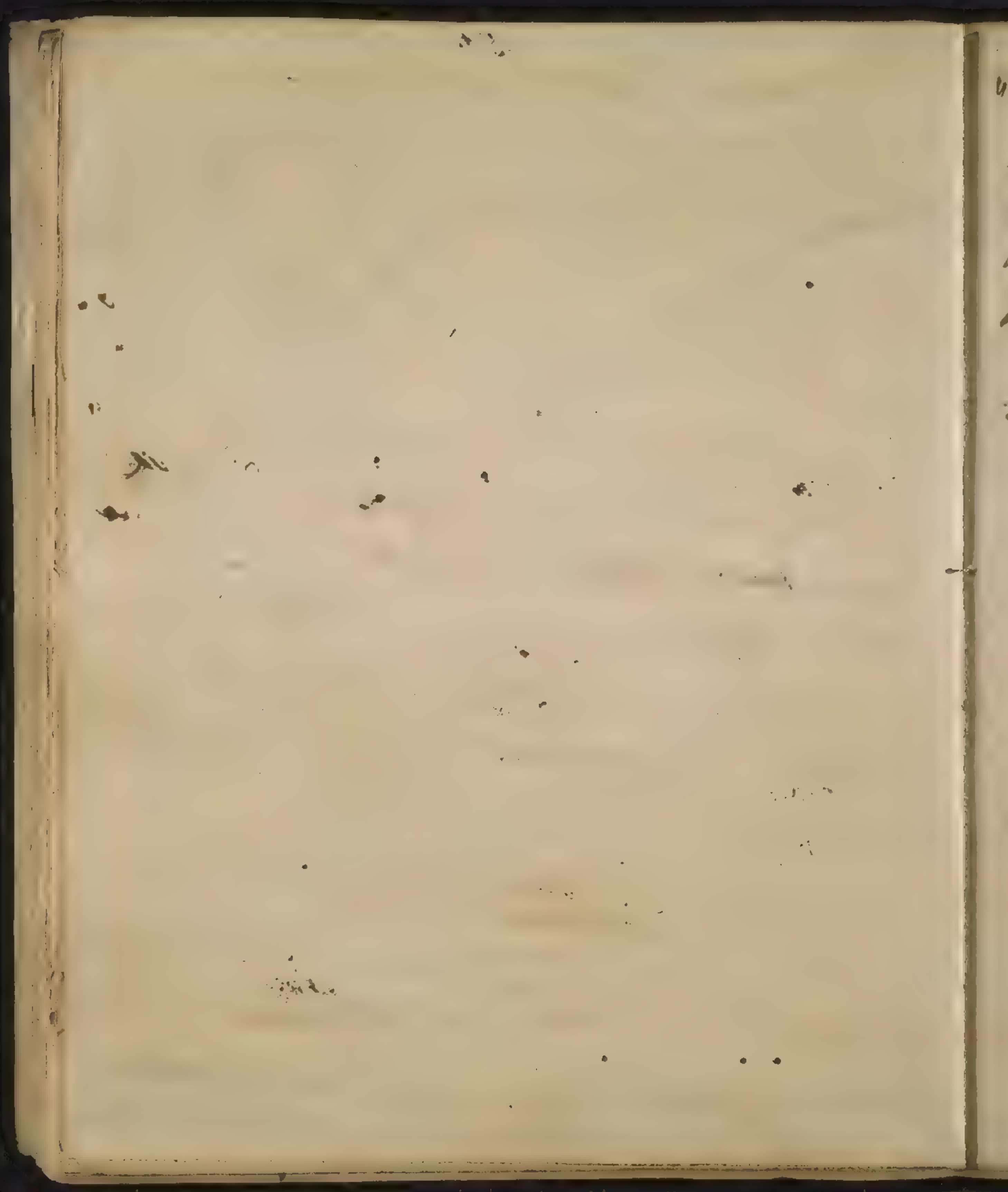
more painful to Dr. Lodge when he passed

from a room in which the mercury

stood at 110° - into the Open Air in which

✓ The pestilential effects of the night air
in Egypt depend chiefly upon the difference
between its temperature, and that of
the preceding day. But

it was 45[°]. Dr Moreley's facts upon this
subject are still more to our purpose.
~~Even the great relaxation & debility of
the nervous system in tropical climates
the most trivial change in the air w^{ch}
makes but a small variation on the Ther-
mometer is productive of a lens at
[says the Doctor]~~
" If the heat of the Air should sink to 72[°]
and remain stationary for a day, in
places where the medium is 80[°] it produces
an aguish, or chilly sensation that is
hardly to be described. Again - adds the
Doctor of " In the habitable mountains
where the air is scarcely ever so cool as
what is called temperate in Europe, people
who go there suddenly from the low lands,
find the coldness at first hardly sup-
portable



" and that intolerable Cotoneph which is
 felt at the Summit of the Blue Mountains ^{in Jamaica}
 [About 2400 yards above the level of the
 Sea) is but the effect of the suddenness of
 the Change from the scorching heat below.
 The thermometer on these mountains
 is about 44° in the day time & 20° at night.
 The diseases produced by this ~~seduction~~ ^{are} of heat
 from a high to a moderate grade, induces
 fever, spasms - and a numbness in the
 limbs. The first occurs ^{vis: ~~fever~~} in the West India
 Islands. The second ^{vis: spasms} in the East India, & the
 last ^{vis: numbness} was observed in the soldiers who marched
 from Suez to Cairo in the year of the French
 & English ^{Campaign in} ~~expedition to~~ Egypt. So numerous
 are these diseases in hot countries, that Dr.
 Mosely has well remarked ~~that~~ "however
 paradoxical it may appear, cold to be

V But how shall we ~~answer~~ reconcile these facts with the account we gave of the insensibility of the body to those great transitions from ~~to~~ intense heat to cold in Finland, Russia & South America. I answer, the heat ^{of the baths} in these cases is more intense, and more destructive to sensibility ^{than the ordinary heat} than in the West Indies. In the latter country heat so far from destroying sensibility ^{often} increases it. But there may be another reason why the an extreme of cold does not induce disease when it succeeds ~~to~~ intense great heat. It may by its sedative and great sedative power ~~to~~ produce reaction in ~~the~~ the system, and thus counteract its over excited effects. In the same way we often suffer ^{less} from standing on walking in an air at 32° than at 45 , or 50° . The former produces reaction, and thus prevents ~~the~~ disease. The latter =

the Cause of ~~all~~ almost all Diseases in hot climates to which Climate Alone is ^{usually} ~~usually~~. It is for this reason the Doctor very justly says the natives of the Islands are always in a state of predisposition to Disease.

2 Cold acts differently according to the Duration. Time of previous heat. ~~the~~ ~~the~~ ~~the~~ the longer the body has been exposed to heat the less it suffers from the Cold, in consequence of the heat destroying sensibility not only to itself, but to Cold likewise, and the shorter the Duration of the ^{heat} ~~the~~ which precedes Cold, the more painful it becomes to the body.

3 It acts differently according to the greater or less excitability of the system. It has been observed that certain Animals perish in a degree of Cold, ^{in the beginning of winter} that revives them in the Spring. In the former season this

=degrees of Cold act too feeble as a sedative
for that purpose. ~~This~~ ~~once~~ The inhabi-
-tants of Cuba (Ulloa tells us) when ex-
-ceedingly wet, plunge themselves into the
-first stream of water they meet with,
in order to ^{avoid} taking Cold. The quantity
of water in this case brings on reaction,
and thus prevents disease. A Cold Bath
at 50° is often safer and more salutary
for the same reason than a Bath at 75° .
The former by its greater Depression of the
System, produces greater reaction. This remark
will be applied to the use of Cold as a
remedy. It teaches us the danger of using very
cold water in violent diseases. It is rendered
less hurtful by being applied a great while
so as to weaken the irritability of the
Vessels. return to 2. p. 57.

¶ Cold water poured ^{under} ~~upon~~ the back of
the coat with the arms elevated gives great
pain. It is one of the modes of punishment
in the ~~own~~ Jail of this city.

Excitability is exhausted - in the latter, it is accumulated by the ~~previous~~ cold of the previous winter. —

4 It acts differently according to its greater or less variations. As small variations ^{more easily} when the mercury fluctuates between 80 & 62, of heat produce disease so do those of cold, ^{provided they ascend from the} ~~be a degree or below 62~~ ^{than 62 and below 60 more easily than would be} —

5 The enervated effects of cold are increased by the frequency & suddenness of the ~~cold~~

alternations of heat and cold. ^{Recall} ~~here what was said of the gradual & sudden application of heat to the~~ ^{cold} ~~body~~ ^{here} ~~that~~ ^{here} cold acts more or less certainly in producing disease according as it is applied to ~~a part~~ ^{or} the whole, ^{or} a part of the body, or upon a part that has been confined from, or exposed to the action of the air. † Cold but often produces Catarrh, Colic, and even palsy & apoplexy. The cold hand of a physician will sometimes produce a rigor in the whole body of a

✓ A lady died of a Consumption in this city about 40 years ago by ^{in consequence of} one of her feet sitting a whole evening with ~~the foot of her stocking~~ chilled by stepping into a gutter of cold water. ~~more~~ It is from the partial effects of cold upon the body, that more colds are taken by sitting before a large fire with the back exposed to currents of ~~cold~~ cool air from ^{leaky} doors & windows, than from exercising a whole day in the open air in cold weather with every part of the body alike exposed to it.

⊙ The Consumptions which have so much increased in ~~constancy~~ of late years among the women of our country I believe are owing in part, to their naked elbows and ~~women~~ arms. Those parts sympathize in an eminent ^{degree} ~~degree~~ with the lungs.

The partial application of cold is felt when it is applied to the lungs only. Cold air inhaled while the body was warm, reduced the pulse 5 strokes in a minute. It is from this partial action of cold upon the body thro' the medium of the lungs that colds are

patient, and I know a gentleman in
this city [Mr Geo: Chapman] who is subject
to a Cough, who can excite a fit of cough-
ing at any time ~~day~~ in the night, only
by putting his hand out of bed. —

A current of Air against the neck often
brings on trismus, stiffness, ~~an~~ inflamma:
on that part of the body,
and sometimes trismus or a locked jaw.

I once knew a young woman who by
~~was~~ having off a ribbon ^{at any time} which she usually
wore upon her cap, was affected with
Coryza, and we had a citizen ~~with~~ of
Philad^a who was affected with Catarrh

every time he passed a forenoon with his
shoes down at the heels. [✓] All these indio:

^{and diseases} positions are the effects of the loss of the
equilibrium of the system. They should
as the importance of guarding ~~many~~

= are so often taken ~~into~~ by invalids
who sleep in a cold room, after passing the
whole day in a room of a warm & pleasant
temperature. return to 10 50 =

61

partial on
~~part~~ of the body from the unequal ef-
fects of Cold in all ~~chronic diseases~~ parts:
positions to disease.

The morbid effects of the same degree of
Cold are much increased by being com-
bined with Wind. ~~It is~~ Diseases
of the breast are often induced by them.
If moisture increases the morbid effects
of Cold. ~~It~~ It acts like Wind by carrying
off the ^{circumambient} heat of the body. The Cold of Great
Britain at 30° is much more disagreeable
than the Cold of Russia at 10°. The Russian
sailors who spent part of ^{the} winter 1771
at ~~Spitzbergen~~ ^{Plymouth} declared that
the most cold of England was far more
insupportable to them than the coldest
weather they had ever before felt in their

✓ It is to the common operation of
Cold and Moisture that the Scrophulous
is more common in Great Britain
than it is ^{any other} ~~this~~ Country, and the poor
suffer most from this disease chiefly
because they are more exposed to its
remote cause from the want of
sufficient fuel and cloathing.

over Country. The Air of Holland owes
 its unwholesome quality to ~~its~~ moisture,
~~It is~~ combined with Cold. It is to
^{the effects of} Obviate both, that the Dutch are obliged
 in the evening to increase this clo-
 -thing - for at that time ~~the~~ moisture
 abounds most in this Atmosphere. ✓
 Cold acts more ~~so~~ certainly upon old,
 than upon young or middle aged persons.
 It has often been remarked that very cold
 Spells of weather (as they are called) in our
 City - that is, weather in which the mercury
 descends below 10 proves fatal to ~~and~~ ^{to} ~~the~~
~~on~~ ^{very} old people. They generally perish
 in their beds, probably from the want
 of a sufficient quantity of bed Cloaths.
 10 ~~to~~ Dutchards are more affected by

2

cold than sober people. Three ^{men} notorious
 for ~~the~~ ~~the~~ drunkenness, died in the course
 of six weeks in the winter of 1791. 2. 2. du-
 ring the coldest week in January. ~~was~~
 in ~~moderate~~ There is a great predisposition in
 Drunkards to be affected by Cold, & hence we
 sometimes observe them to be chilly even
 in moderate weather.

11 Cold is more disposed to produce disease
 when the stomach is empty than when
 it is full of Aliment, - ~~hence~~ sailors ^{who} suffer
 from Cold are often predisposed to it from
 the long fasting to which cold & bad weather
 at sea exposes them.

12 Cold acts more certainly & more powerfully
 upon the system in the sleeping than in
 the waking state. It has been found that
 a man dies in a cold of 8:0 or 9:0 below



0, ~~both~~ when asleep; whereas a man who is awake & in exercise will survive a degree of cold 30° below 0. The more frequent attacks of fevers in the night than at any other time is be ascribed chiefly to the greater influence of cold upon the body in a sleeping than in a waking state.

13 Invalids who are ^{Sherrison} accompanied with the ^{particular} friction of, ^{with weak} or chronic diseases, ^{particularity of the system} are always predisposed to be ~~more~~ injured ^{by} cold.

~~Upon reviewing the morbid effects of cold we cannot help being struck with their number, & violence, and the misery that is connected with them. Perhaps there is more animal suffering from~~

14 ~~The morbid effects of cold are more hurtful~~
Cold is more hurtful in the human

~~From what has been said you will be able to~~
~~ascertain the reason why the diseases of the~~
~~four seasons of the influence of cold climates~~
~~upon the body in producing diseases, but~~
~~of the four seasons of the year. They act~~
~~you will be able to account for the~~
~~variety and changes in the diseases of~~
~~the four seasons of the year.~~

Autumn when the body is impregnated with putrid miasmata than at any other time. I have twice seen several hundred persons indisposed ^{with fever} from the coldness of a single night, exceeding a hot day in the month of August, who would feel scarcely a slight Catarrh from the same change in the weather in the month of June, or November. &c.

In reviewing the morbid effects of Cold, we cannot help being struck with their number & violence, and the misery that is connected with them. Perhaps there is more animal suffering from Cold than from any other cause. The whole brute creation groans under ~~it~~ ^{it} millions of animated creatures perish from it every year. But to man it is hurtful & destructive in a high degree. Who can calculate

20
=
20

the pains and distresses of sailors, soldiers
 & the labouring poor from this cause?
 — how numerous ~~are~~ and fatal are the
 diseases induced chiefly by its simple
 operation! ^{but} ~~and~~ ~~how~~ still more numerous
 & fatal are its effects when combined

with moisture and misornate! ~~It~~
 may be considered as the exciting cause of nearly all disease.
 — has been strangely overlooked in the
 inventory of human evils, but I be-

lieve the facts that have been enu-
 merated, authorize us to assert that there
 does not ~~even~~ exist upon our globe
 a greater ^{physical} enemy to the ~~life~~ health, and
 life of man than Cold. — the effects of

But numerous; distressing and fatal as
 cold has been represented to be, they do not
 exist by an invincible law of nature.
~~where~~ where men live agreeably to reason

The Deaths in Petersburg are said to be
1 male in 9, and 1 female in 13 annually
After they pass the between the 20th & 25th
years of life, and most of them from the
intemperate Use of Brandy disposing to
fevers. These fevers are $\frac{1}{4}$ pleuritic $\frac{1}{6}$
consumptive & $\frac{1}{3}$ common fevers making
 $\frac{5}{7}$ of all who die } maltdies.

health & longevity are ^{by} nearly as common
in Cold as in warm Countries, and even
in those Countries where they are not so,
it is probable ~~they~~ diseases are indu-
ced, and life shortened by the excessive use
of ~~stimuli~~ ardent spirits, animal food &
dancing which are resorted to, ~~to~~ in order to
counteract the effects of cold. Thick walls
double windows, and ~~for~~ close stoves ^{in the} ~~at~~
hoirs, and fires, and foot stoves in the
open air, afford an ample protection from
the cold in Canada and Russia. This is
so much the case, that De Quetteville tells us
~~that Russians~~ ~~experience~~ the Calamity is
unknown in the latter Country in their sever-
est winters. ~~Some~~ ~~have~~ Natives of the
middle states who pass a winter in Canada

60

as sure as they suffer less from the cold there, than in their own country.

Now is a Climate such as that of the Southern parts of Europe and of the United States in which the Thermometer is constantly fluctuating between heat & cold equally unhealthy where the inhabitants accommodate their Drees and manner of living to the changes in the weather. ~~Now~~ Where persons object to ^{the trouble of} changing their Cloaths daily, or two or three times a day, when the changes in the weather require it, they should wear cloaths warmer than is agreeable to them. By this means many people escape the diseases of middle & variable climates.

40

Now does moisture when combined with cold, necessarily produce sickness.

This is evident from the healthy complexion and robust bodies of the inhabitants of Great Britain & Ireland. The morbid effects of this Union of ~~the~~ moisture with cold are obviated by constant labor, suitable clothing, - and the influence of habit upon the body. - ~~The same~~ ^{as} Dr Sydenham confirms this remark ~~the~~ ^{as} ~~the~~ well as the one made under the preceding head. He says most of the acute

diseases of Great Britain are ~~the~~ produced by ^{the neglect or} ~~the~~ the want of ^{sufficient} clothing ~~to~~ ^{things} to protect the body from cold. The same ~~same~~ ^{acute diseases} produce or excite nearly all the ~~acute~~ ^{acute} ~~diseases~~ ^{diseases} in the middle states of America. I have been called to many thousand people in-
-disposed



with fevers from ^{too} wearing too thin cloaths,
or sleeping under too few bed cloaths, but
never one person indisposed from an
excess in the use of either of those Articles.

I shall ~~conclude the history~~ ^{conclude the history}
~~of the effects of heat, cold, moisture, &c.~~ ^{of the effects of heat, cold, moisture, &c.}
upon the body, by repeating that ~~what~~ ^{none}
of them are hurtful when they are uni-
form.

It is ~~from a moisture atmosphere~~ ^{from a moisture atmosphere}
- form - ~~the confining~~ ^{the confining} when not alterna-
-ted with dry weather for several months
is not unhealthy. This has been taken
notice of by Dr Wintringham in his Account
of the Epidemics of Great Britain. ~~They~~ ^{They}
~~chiefly from~~ ^{chiefly} the changes ~~very~~ ^{chiefly} in the sensible
Qualities of the Air that we derive all the
Diseases that have been ascribed to them.

